

REMARKS

Claims 1, 2, 5-7, 9-11 and 13-16 are pending and under consideration in the above-identified application.

In the Office Action, Claims 1, 2, 5-7, 9-11 and 13-16 were rejected.

In this Amendment, Claims 1, 6, 7, 9, 10 and 11 are amended. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1, 2, 5-7, 9-11 and 13-16 remain at issue.

I. Interview Summary

Applicant thanks the Examiner for the courtesy extended during a telephone conference held on Wednesday February 6, 2008 with Applicant's agent, Kader Gacem. During the interview, Applicant's agent noted that although Jalali, Tseung and Hamilton are analogous art because they are all pertain to data transmission, their combination does not teach all of the limitations of the independent claims.

Applicants' agent noted that none of these references teaches or suggests a setting unit for setting a flag indicating that the time clocked by the clocking unit exceeds the reference time value when determined by the determination unit and that the transmission of the first set of information units is cancelled and a writing unit for writing the flag into each of the second set of information units which are transmitted by the second transmission unit. In response, the Examiner disagreed and reiterated that a combination of Tseung and Hamilton teaches the setting of the flag in information units to be transmitted.

Further, the Examiner requested that the flags recited in the limitation "another transmitted information packet whose corresponding information fragments are determined to contain flags" of Claim 9 be further defined.

Although, no agreement was reached, the Examiner stated that he looks forward to Applicant's filed response in order to better follow Applicant's arguments.

II. 35 U.S.C. § 112 Indefiniteness Rejection of Claims

Claims 1, 2, 5-7, 9-11 and 13-16 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As required by the Examiner, Applicant has amended Claims 1, 6 and 7 to clarify the limitation "clocking the time when the first information is transmitted" to read "a clocking unit for clocking a time from when transmission of said first set of information units is initiated."

Further, the Examiner stated that in the context of the claim it is unclear what "information" refers to. However, Applicants conducted a basic search of the word "information" in claims of issued U.S. patents and found that the word "information" is routinely used alone. Based on the USPTO patent database search, contrary to the Examiner's statement Applicants concluded that one of ordinary skills in the art does recognize that information can refer to data, video, audio and so forth, which may need to be subdivided into packets or units to facilitate its transmission through a communication network.

Regarding Claims 9 - 11, Applicants have amended these claims by removing the "indication" limitation. Moreover, these amended claims now recite in the preamble that "an information packet, transmitted through a network, said information packet being divided into information fragments" to clarify the relationship between the information packet and its fragments.

Thus, Applicants submit that Claims 1, 2, 5-7, 9-11 and 13-16 are no longer indefinite and respectfully request that this claim rejection be withdrawn.

III. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 1, 2, 6, 7, and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jalali* in view of *Tseung* (U.S. Patent No. 5,109,384) and *Hamilton* (U.S. Patent No. 6,392,993). Although Applicant respectfully traverses this rejection, Claim 1 has been amended to clarify the invention and remove any ambiguities that may have been at the basis of this rejection.

Claim 1 is directed to an information processing apparatus configured for transmitting information to a transmission party via a network in predetermined information units.

The information processing apparatus comprises a first dividing unit for dividing a first information into a first set of information units, a first transmission unit for transmitting the first set of information units to the transmission party through the network, a receiving unit for

receiving, from the transmission party, indication about the reception of the first set of information units transmitted by the first transmission unit, a clocking unit for clocking a time from when transmission of the first set of information units is initiated, a determination unit for determining whether or not the time clocked by the clocking unit exceeds a reference time value associated with the first set of information units, a second dividing unit for dividing a second information, which follows the first information, into a second set of information units, a second transmission unit for transmitting the second set of information units *to the transmission party through the network* when the indication is received or when the indication is not received within the reference time value, a setting unit for setting a flag indicating that the time clocked by the clocking unit exceeds the reference time value when determined by the determination unit *and that the transmission of the first set of information units is cancelled*, and a writing unit for writing the flag into each of the second set of information units which are transmitted by the second transmission unit when the flag is set by the setting unit.

That is, the second set of information units is transmitted by the information processing apparatus when the indication about the reception of the first set of information units is received or when the indication is not received within the reference time value. Further, a setting unit of the information processing apparatus sets a flag indicating that the time clocked by the clocking unit exceeds the reference time value step and that the transmission of the first set of information units is interrupted, and a writing unit of the information processing apparatus writes the set flag into each of the second set of information units to be transmitted to the transmission party via the network.

This is clearly unlike *Jalali*, *Tseung* and *Hamilton*. The Examiner acknowledges that *Jalali* does not explicitly disclose “setting a flag indicating that the clocked time exceeds the time reference value, but asserts that *Tseung* allegedly does and points to the Abstract and Column 22, lines 62 and 63, for support.

Applicants are in agreement that *Tseung* sets a flag when the acknowledgement timer set by the retransmission station 20 expires. During the interview, summarized above, the Examiner advanced that *Tseung* also writes the set flag in the second set of information units. Applicants

respectfully disagree and note that *Tseung* only writes the flag in the unacknowledged message to be resend but not in the second set of information units which make up the next message yet to send, as required by Claim 1.

In fact, *Tseung* states in Column 22, line 54 - 68, that (emphasis added):

“The retransmission station 20 uses an acknowledgement timer in order to test for lost or distorted messages. After the retransmission station 20 sends a message on network B18, it starts a timer. Normally, the acknowledgement message from the designated recorder station 28 is expected to arrive before the timer expires. In case of a lost or distorted message, the designated recorder station 28 does not send an acknowledgement message. The timer would expire (the ACK timer expired on network B flag 866 would be set) and the last unacknowledged message 913 is resent (as tested for by decision block 88). This message can be picked up by using the pointer to last sent message 902 in the message control block for DRC 834. The processing routine which sends the message is called ACKTIM 90.”

and in Column 23, lines 18 – 34, that (emphasis added):

“FIG. 8 shows the processing routine ACKTIM 90. This processing routine is entered when the acknowledgement timer expires (generally indicating that the designated recorder station 28 failed to send an acknowledgement message back to the retransmission station 20). The failure may be due to CRC or missing messages either from the retransmission station 20 or from the designated recorder station 28. The retransmission station 20 tries to rebroadcast the previously sent message (at block 120), but there is a limit to how many times it can keep trying. If the limit (maximum retry limit 854) is exceeded (as tested for by blocks 114, 116), the error is regarded as fatal. This occurs if the designated recorder 28 is down or there are unrecoverable hardware errors. On fatal error, a fatal error indicator (fatal error number 824) is set (block 118) and no more rebroadcast occurs.”

Still *Tseung* states in Column 22, lines 22 – 33, that (emphasis added):

“The retransmission station 20 waits for some event such as reception of a message to occur (the MSG received on network A flag 858 or MSG received on network B flag 860 is set) and then dispatches to a special processing routine to handle the event. At the end of the special processing routine, control returns back to the main line of processing and if there were no errors, the retransmission station 20 waits for the next event as shown on FIG. 5. If there are fatal errors, control is passed to the fatal error handling 76 portion for processing. The program exits after the fatal error processing in the embodiment shown.”

That is, *Tseung* teaches that when the ACK timer expired on network B flag 866 is set and the last unacknowledged message 913 is resent. This message 913 which includes flag 866 can be picked up by using the pointer to last sent message 902 in the message control block for DRC 834. The processing routine, which sends the message and is called ACKTIM 90, is entered when the ACK timer expires (generally indicating that the designated recorder station 28 failed to send an acknowledgement message back to the retransmission station 20). In this ACKIM 90 routine, the retransmission station 20 tries to rebroadcast the previously sent message (at block 120), but there is a limit to how many times it can keep trying. If the limit is exceeded, the error is regarded as fatal. This occurs if the designated recorder station 28 is down or there are unrecoverable hardware errors. On fatal error, a fatal error indicator is set and no more rebroadcast occurs. So clearly, *Tseung* only writes the flag in the unacknowledged message to be resend but not in the second set of information units which make up the next message yet to send, as required by Claim 1. Moreover, in *Tseung* the set flag is not indicative that the transmission of the first set of information units is cancelled, as required by Claim 1.

Moreover, the Examiner indicated that *Jalali* does not explicitly disclose “writing said flag into each of said second set of information units which are transmitted by said second transmission unit when said flag is set by said setting unit” but asserted that *Hamilton* allegedly does and points to the Abstract and Table 3 in Column 11, for support.

However, *Hamilton* states in the Abstract that (emphasis added):

“The positive reliability mode of the present invention periodically sets an acknowledgement flag in the packets transmitted for a message. Receiving systems send an acknowledgement in response to receipt of that packet. The sending system tracks receipt of acknowledgements by intended recipient and retransmits any unacknowledged packets so as to positively assure the packets are received. Receiving systems send negative acknowledgements to request retransmission of missing packets. Negative acknowledgement suppression is implemented at both the sender and receiver to prevent a flood of negative acknowledgements from overwhelming the network. Packets are transmitted by the sending system at a transmission rate selected to avoid any adverse impact on the packet loss rate of the network.”

Moreover, in Table 3 of Column 11, *Hamilton* states that:

TABLE 3

Bit	Meaning	Values	Notes
x0001	EOM	0 or 1	Set in the last data packet for the message
x0002	ACK Requested	0 or 1	Set in positive reliability mode when the sender wants an ACK in response.
x0004	Reply Requested	0 or 1	Set when the sender wants a response message.
x0008	Reply Requested Protocol	PosRel or StatRel	Required when Reply Requested is Specified. Default is PosRel
x0010	Reply Message	0 or 1	Set on all packets in a Response message.
x0020	Reliability Mode	PosRel or StatRel	Reports the Reliability mode of all packets in a message
Remainder	RESERVED	0	

That is, *Hamilton* teaches that the sending system (information processing apparatus) periodically sets an acknowledgement flag in the packets transmitted when an ACK is desired in a response. Moreover, the sending system also sets a flag on all packets to indicate a reply message or sets a flag in all packets to report a reliability mode. Thus, *Hamilton* fails to teach or suggest that the flag is set only in the second set of information units to indicate that the clocked transmission time of the first set of information units has expired and that the transmission of the first set of transmission units has been cancelled, as required by Claim 1.

Thus, the cited references may not be properly combined to reject Claim 1. As such, Claim 1 is patentable over *Jalali*, *Tseung* and *Hamilton*, as are dependent Claims 2 and 13 and Claim 16, for at least the same reasons.

Independent Claims 6 and 7, which have been amended to recite the same distinguishable limitation as that of Claim 1, are also patentable over *Jalali*, *Tseung* and *Hamilton*, as are their respective dependent Claims 14 and 15, for at least the same reasons.

Accordingly, Applicant respectfully request that this claim rejection be withdrawn.

IV. **35 U.S.C. § 103 Obviousness Rejection of Claim 5**

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Jalali* in view of *Tseung* and *Hamilton* as applied to Claim 2 above and further in view of *Kamihara* (U.S.

Patent No. 6,854,020). Applicant respectfully traverses this rejection.

Claim 5 is dependent on Claim 1 shown above to be patentable over *Jalali, Tseung* and *Hamilton*. Moreover, in addition to *Jalali, Tseung* and *Hamilton*, *Kamihara* also fails to teach or suggest that the second set of information units is transmitted by the information processing apparatus when the indication about the reception of the first set of information units is received or when the indication is not received within the reference time value, that a setting unit of the information processing apparatus sets a flag indicating that the time clocked by the clocking unit exceeds the reference time value step and that the transmission of the first set of information units is interrupted, and a writing unit of the information processing apparatus writes the set flag into each of the second set of information units to be transmitted to the transmission party via the network.

As such, Claim 1 is patentable over *Jalali, Tseung, Hamilton* and *Kamihara*, taken singly or in combination with each other, as is dependent Claim 5 for at least the same reasons.

Accordingly, Applicants respectfully request that these 35 U.S.C. § 103 claim rejections be withdrawn.

V. 35 U.S.C. § 103 Obviousness Rejection of Claims 9 – 11

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hamilton* in view of *Knobel* (U.S. Patent No. 6,765,871).

Claim 9 is directed to an information processing apparatus for receiving an information packet, transmitted through a network, *the information packet being divided into information fragments*. The information processing apparatus comprises a receiving unit for receiving the information fragments via the network, a storage unit for storing each of the information fragments received by the receiving unit, an assembling unit for assembling the information fragments stored in the storage unit to reproduce the information packet, a first deletion unit for deleting each of the information fragments, stored in the storage unit, when the information fragments are assembled to reproduce the information packet by the assembling unit, a determination unit for determining whether or not a predetermined flag is contained in the information fragments received by the receiving unit, and a second deletion unit for deleting the information fragments stored in the storage unit, corresponding to the information packet which

is immediately prior to another transmitted information packet whose corresponding information fragments are determined to contain flags. *The flags are indicative that a clocked transmission time of the information fragments exceeds a reference time value and that the transmission of the information fragments is cancelled.*

In addition to *Hamilton*, *Knobel* also fails to teach or suggest that the set flags are indicative that a clocked transmission time of the information fragments exceeds a reference time value and that the transmission of the information fragments is cancelled.

As such, Claim 9 is patentable over *Hamilton* and *Knobel*, taken singly or in combination with each other.

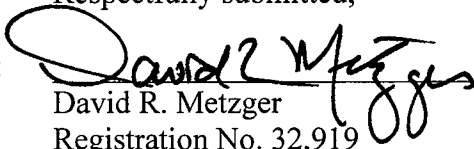
Independent Claims 10 and 11, which have been amended to recite the same distinguishable limitation as that of Claim 9, are also patentable over *Hamilton* and *Knobel*.

Accordingly, Applicant respectfully request that this claim rejection be withdrawn.

VI. Conclusion

In view of the above amendments and remarks, Applicant submits that Claims 1, 2, 5-7, 9-11 and 13-16 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

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